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supportive care (21%), TACE (18%) and TARE (3,5%). The mean duration of treatment with sorafenib (a total of 137 patients) was 6.1 months; the average number of TACE and TARE sessions was 2.5 and 1.5 procedures/patient, respectively. The total costs of treatment per patient amounted to 12,215€ for sorafenib, 13,419€ for TACE and 26,106€ for TARE; variability in treatment patterns among centres was observed. **CONCLUSIONS:** The present analysis raises for the first time the awareness of the overall costs incurred by the Italian National Healthcare Service for different treatments used in intermediate and advanced HCC highlighting the need for future research and analysis of the cost- effectiveness of TACE alone or combined with sorafenib, in the treatment of HCC.

PCN126

ECONOMIC BURDEN OF PATIENTS WITH ALK+ MUTATION NON-SMALL CELL LUNG CANCER AFTER TREATMENT WITH CRIZOTINIB: A CANADIAN RETROSPECTIVE OBSERVATIONAL STUDY

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OBJECTIVES: Non-small cell lung cancer (NSCLC) accounts for 85-90% of all lung cancers. Anaplastic lymphoma kinase (ALK) gene rearrangement mutations are found in 4-7% of NSCLC tumours. Crizotinib is indicated for treatment of patients with ALK-positive (ALK+) advanced or metastatic NSCLC. However, patients eventually progress/develop resistance over time. There is limited evidence on the economic burden among Canadian ALK+ NSCLC patients who discontinue crizotinib. **METHODS:** A chart review study was conducted to assess treatment patterns, resource utilization and associated costs among patients with locally advanced or metastatic ALK+ NSCLC, diagnosed 2010-2015, who were intolerant to or progressed on crizotinib treatment. Data were collected from medical charts from six Canadian oncology centres. Cost estimates were calculated using a 'bottom-up' approach, where frequency of utilization, retrieved by type and frequency, was multiplied by each resource unit cost. Costing was performed with the public payer's perspective, and as ceritinib was approved in March 2015, associated costs were excluded. **RESULTS:** A total of 97 charts were included, with 49 crizotinib-failures, 9 crizotinib-naive and 39 ongoing crizotinib treatment. Among those who failed crizotinib treatment, mean age at diagnosis was 53 years, with 53% female, 53% Caucasian, and 67% non-smokers. Treatment patterns post crizotinib in any line of treatment was ceritinib (43%), targeted therapy (6%), platinum doublets (23%), single agent chemotherapy (23%)and no further systemic treatment (41%); 35% and 33% of patients received concurrent palliative care and/or radiotherapy, respectively. Median overall survival in patients who received non-ceritinib treatment was 1.7 months. Total mean cost for completed systemic treatment post-crizotinib was $16,473/patient, excluding ceritinib costs. Other costs included palliative care and radiotherapy. Mean monthly cost for resource use was $4,382/patient. **CONCLUSIONS:** Treatment patterns post-crizotinib were heterogeneous. Estimated economic burden in patients who received active treatment remains significant despite their poor prognosis.

PCN127

RESOURCE USE AND COST OF CHEMOTHERAPEUTIC TREATMENT FOR METASTATIC BREAST CANCER IN THE NETHERLANDS

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OBJECTIVES: To analyse chemotherapeutic treatment duration, resource use and cost per treatment line in metastatic breast cancer (MBC) patients in the Netherlands. To analyse lifetime chemotherapy cost and which patient and disease characteristics influence it. **METHODS:** A database containing information on treatment, disease and patient characteristics of 815 MBC patients was analysed. Inclusion criteria were: having a confirmed MBC diagnosis and having received at least one chemotherapy administration after MBC diagnosis. On and off treatment duration, number of administrations and mean cost were aggregated for each regimen in each treatment line. Chemotherapy costs of each regimen in each line were corrected for censoring through the Lin's method. Corrected costs were used to calculate treatment line costs and lifetime cost. A generalised linear model was used to assess the influence of patient and disease characteristics on lifetime chemotherapy cost. **RESULTS:** Total chemotherapy line durations and off treatment durations were highly variable and decreased across treatment lines. Taxane-based chemotherapies (docetaxel and paclitaxel) were the most often used regimens in the first two lines of treatment. Afterwards, capecitabine, vinorelbine and gemcitabine were more often used. The fifth treatment line was the most expensive (mean: €9,501, range: €555 - €31,864), followed by the first line (mean: €4,454, range: €381 - €47,872). Mean lifetime costs was €7,360 (range: €381 - €73,512) and was significantly influenced by age and metastatic sites at metastatic diagnosis. **CONCLUSIONS:** There is a high variability in chemotherapy treatment duration, resource use and cost between and within treatment lines. Lifetime chemotherapy cost was influenced by metastatic sites and age at metastatic diagnosis. Patient and disease characteristics and treatment line number are therefore important when determining the cost of chemotherapy for MBC. Consequently, (model-based) economic evaluations should incorporate more detailed cost estimates concerning chemotherapeutic treatment for MBC.

PCN128

PROSTATECTOMY: A COMPARISON OF COST-BENEFIT ANALYSIS BETWEEN OPEN SURGERY AND ROBOTIC TECHNIQUES

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OBJECTIVES: Among the therapeutic practices for prostate cancer, open-surgery is the most frequent technique. Recent studies have shown that robotics allows a recovery of the function more rapid than the classic open-surgery, although the costs are not yet clear. Purpose of this project is to explain from the economic point of view about the future urologic surgery. **METHODS:** In order to analyse the laparotomy and robotics techniques, we approached costs and revenues. The formers are standardized for each kind of surgery, starting from a common case study led by the two hospitals of Modena. The latter are extracted punctually from the internal database. Finally we focused on the benefits and complications for the patients for the two kinds of techniques. **RESULTS:** In 2014 the hospitals have provided 91 robotic surgeries and 25 in open-surgery. Revenues for robotic activities are about 623.539€ while those for open-surgery are 162.045€, with an average value for each patient respectively of 6.852€ (A) and 6.481€ (B). The average hospitalization for robotic activities is about 6 days, versus the 10 days for the open-surgery. From the analysis above, the costs of robotics are about 6.000€ (D), while the open-surgery 2.000€ (E). Average income of robotics (A), standardized to average hospitality (from 6 to 10 days), gives an amount of 11.420 € (C). Comparing (C) with (B), the 4.000€ of marginality equals the gap between (D) and (E). **CONCLUSIONS:** The results show no economic differences between the two techniques. However, according to clinical point of view, the strong clinical benefits of robotics are evident. As explicated by the literature, the accuracy of robotics technique, combined with a more rapid learning curve, guarantee a more rapid recovery of urinary tract functionality. Despite the goodness, the simulated analysis embeds limits: there is no warranty of transferability.

PCN129

HEALTH-ECONOMIC COMPARISON OF A GNRH-ANTAGONIST (DEGARELIX) VS. GNRH-AGONISTS CONSIDERING THE NUMBER-NEEDED-TO-TREAT TO AVOID CARDIOVASCULAR EVENTS

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OBJECTIVES: Recent studies suggest that Androgen-Deprivation-Therapy is associated with increased risk for patients with hormone-sensitive prostate cancer (PCa) and pre-existing cardiovascular (CV) disease. Hereunder, the slightly more expensive GnRH-antagonist shows a beneficial risk profile over GnRH-agonists. Therefore the objective of the present study was to assess the cost-effectiveness of degarelix compared to GnRH-agonists for PCa-patients with pre-existing CV disease. **METHODS:** This analysis is based on a pooled analysis of six Phase III-RCTs comparing GnRH-agonists with degarelix addressing CV-events in PCa-patients (Albertsen et al.2014). For the combined endpoint of CV-events or death a superiority of degarelix was determined with a Number-Needed-to-Treat (NNT) of 12. From German sick funds perspective, this study estimates and validates the additional degarelix drug costs to the cost of one (avoided) CV-event. The CV-event costs were estimated via emergency treatment, inpatient hospital treatment and rehabilitation. The difference of these two cost pools divided by 12 (patients) yields the average saving per patient and year. To validate the robustness of results, sensitivity analyses were performed for choice of comparator, variations in the NNT (number of included studies and study length) and real world cost data. **RESULTS:** Compared to the most commonly prescribed GnRH-agonist (Trenantone) additional drug costs for degarelix amount to €3,111 for the treatment of 12 PCa-patients. For the prevention of one CV-event average savings of €8,297 are generated. Hence, average savings of €432/year/patient are generated. While examining only studies with CV-events (NNT=11) or when assuming the same length of all studies (NNT=13) savings amount to €495 and €379, respectively. Switching to compare to the cheapest comparator or taking into account CV-event real world cost data (€9,392 per event) savings of €62 and €523 are generated, respectively. **CONCLUSIONS:** Degarelix is cost-effective for PCa-patients with increased CV-risk compared to GnRH-agonists, also under consideration of various sensitivity analyses.

PCN130

COLORECTAL CANCER: THE IMPORTANCE OF BEING RIGHT – A MODEL INVESTIGATING THE IMPACT OF BOWEL CLEANSING ON ADENOMA DETECTION IN A GERMAN SCREENING POPULATION

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OBJECTIVES: Through the earlier detection and removal of cancerous and precancerous adenomas, colorectal cancer (CRC) screening aims to reduce both the risk to individuals and burden on healthcare systems. Inadequate bowel preparation prior to colonoscopy correlates with a higher rate of missed adenomas, especially in the right colon. The differential cost and efficacy of available bowel cleansing products mean that healthcare providers are faced with a decision that has both economic and public health consequences. A model was therefore constructed to investigate the long term benefits of adequate bowel cleansing. **METHODS:** The cost-consequence model compares the total cost of colonoscopy, and treatment of subsequent CRC, over a 10 year time horizon in a cohort of 10,000 patients aged ≥55 years receiving either 4L of polyethylene glycol (4LPEG), 2L of PEG with ascorbate (2LPEG+ASC), or 1L of sodium picosulphate with magnesium citrate (NaPic/MgCit) prior to colonoscopy. Rates of successful bowel cleansing, completed colonoscopies, and adenoma detection rate (ADR) were obtained from clinical trial data, together with published rates of surveillance colonoscopy, associated costs, and healthcare resource utilisation in Germany. **RESULTS:** In the model, poor compliance with the higher volume 4LPEG leads to a lower rate of completed colonoscopies, and more missed adenomas than with lower volume 2LPEG+ASC. Moreover, the superior compliance and higher ADR achieved using 2LPEG+ASC, particularly in the right colon, results in more cases of CRC prevented over 10 years than 4LPEG and NaPic/MgCit (25 and 113 more cases, respectively). Through a decrease in treatment of CRC, this equates to an average overall cost saving of €213 and €625 per patient, respectively, over 10 years. **CONCLUSIONS:** Optimisation of bowel cleansing prior to colonoscopy is likely to increase the detection (and removal) of cancerous and precancerous adenomas, which may reduce the development of CRC, avoid treatment costs, and reduce mortality.